

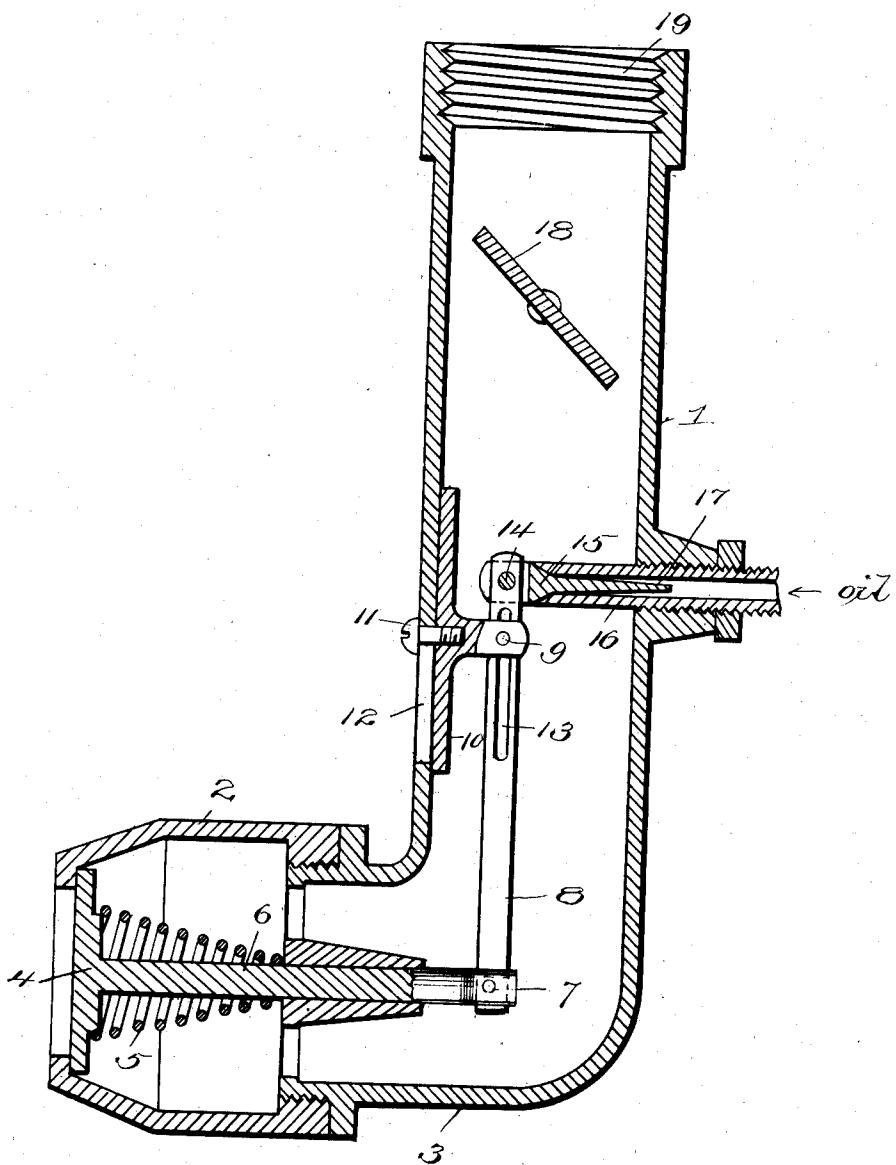
J. A. CARLSON.

CARBURETER.

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926,848.

Patented July 6, 1909.



Witnesses

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# UNITED STATES PATENT OFFICE.

JOHN A. CARLSON, OF DENVER, COLORADO.

## CARBURETER.

No. 926,848.

Specification of Letters Patent.

Patented July 6, 1909.

Application filed March 27, 1908. Serial No. 423,571.

*To all whom it may concern:*

Be it known that I, JOHN A. CARLSON, citizen of the United States, residing at Denver, in the county of Denver and State of Colorado, have invented certain new and useful Improvements in Carbureters; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in carbureters, and has for an object the provision of means that will permit the ready regulation of the flow of oil for varying the amounts of air supplied.

Another object in view is the provision of a carbureter having an air valve and an oil valve so connected up and mounted as to permit a ready variation of the oil and air without changing the tension of any of the parts.

A further object of the invention is the provision of means for regulating the inflow of oil that will cause the oil valve to open to a greater or less extent, but will permit the usual amount of air to be supplied.

With these and other objects in view the invention comprises certain novel constructions, combinations, and arrangement of parts as will be hereinafter more fully described and claimed.

In the accompanying drawing, the figure presents a longitudinal, vertical section through a carbureter, embodying the features of the present invention.

Referring to the drawing by numerals, 1 indicates a mixing chamber or housing, and 2 the housing of an intake air valve. The valve housing 2 may be secured to housing 1 by screw threads or in any other desired manner, and is positioned so as to extend to a right angle to housing 1. In order to accommodate or receive housing 2 housing 1 is bent at 3 so that a valve 4 in housing 2 may act freely for permitting air to enter into housing 1 even though housing 2 is positioned at right angles to housing 1. Valve 4 is normally held closed by a spring 5 of any desired strength and in operation is opened by suction from the engine as the same draws in air and oil. Extending from valve 4 is a stem 6 that is pivotally mounted at 7 to a lever 8 which in turn is pivotally mounted at 9 to a sliding or adjustable member 10. The sliding adjustable member 10 is held in position

by any desired securing means as bolt 11 that moves in a slot or way 12 formed in housing 1. Lever 8 is provided with a slot 13 in which pivotal member 9 is adapted to move. By this construction whenever it is desired to move pivotal member 9 to change the fulcrum upon which lever 8 moves, screw 11 is loosened and member 10 slid or moved longitudinally of housing 1, screw 11 moving in slot 12. It will be observed that member 10 covers the slot 12 so that no air may enter at this place.

Lever 8 extends beyond pivotal point or member 9 and is pivotally secured at 14 to a valve 15 that is adapted to close an oil feed pipe 16. Valve 15 is provided with a comparatively long projecting member 17 that acts as a guide for the valve in its movement so that in moving off its seat and moving back to its seat there will be no danger or likelihood of the valve not properly seating itself or leaving any place for the escape of oil. The movement of valve 15 is substantially in a vertical direction, but by reason of the pivots 9 and 14 being positioned in a certain relationship to each other there will be caused a movement slightly on the arc of a circle for the upper end of valve 15, and in order to prevent any such movement to cause any likelihood of the valve missing its seat an extension 17 is provided that is never removed from tube 16 and consequently will guide the valve back properly to its seat.

Positioned in housing 1 in the travel of the air and oil as the same goes toward the engine (not shown) is a valve or baffling member 18. The valve or baffling member 18 is pivotally mounted in housing 1 and is adapted to close one end of housing 1 so that when closed the engine to which the carbureter is attached cannot draw in air or oil. Ordinarily, however, the baffling member or valve 18 is adapted to cause a greater or less supply of gas to be fed to the engine by turning the same for partially closing the end of housing 1, as seen in the drawing.

In operation the housing 1 may be secured to the engine by securing the same on at 19. As the engine is turned over a suction is created that extends to housing 1 and from there to housing 2 which will open valve 4 and permit an influx of air. As valve 4 opens the motion will be communicated to lever 8 and from thence to valve 15 which will be open at the same time so that when valve 4 is open air travels from valve 4

through housing 1 and picks up the oil from pipe 16 and is enriched thereby and is thoroughly mixed by striking against baffling member 18 if not already thoroughly mixed.

5 From housing 1 it passes on to the explosion chamber of the engine and acts in the usual manner. If there is not sufficient oil being fed through pipe 16 supporting member 10 may be moved longitudinally of housing 1,

10 and consequently pivot 9 will be moved in slot 13 toward pivotal member 7. This will cause valve 4 to move valve 15 to a greater extent, and will thereby permit more oil to flow into housing 1. By this construction

15 and arrangement oil and air are fed in at the same time and no oil is fed when there is no air fed, and in addition by reason of the adjusting member 10 oil and air may be varied until the right proportion of air and oil is secured for securing the best results.

What I claim is:

1. In a carbureter, a housing formed with a slot therein, an air valve, an oil valve, a lever connecting said valves, an adjustable fulcrum for said lever, a sliding plate for closing said slot in said housing, and means passing through said slot and engaging said plate for locking said plate and said fulcrum in their adjusted positions.
2. In a carbureter, a housing formed with a slot, an air valve, an oil valve, a lever for operating both of said valves, a slideable fulcrum for said lever, and means passing through said slot for adjustably securing said fulcrum in position.
3. In a carbureter, a housing formed with a slot in one side, an air valve, an oil valve, a

lever for connecting said valves, a movable fulcrum for said lever, means passing through said slot in said housing for regulating the position of said fulcrum, and means for closing said slot regardless of the position of the means passing through the slot.

4. In a carbureter, the combination with a housing, of an air intake valve positioned in one end of said housing, a baffling member and regulator positioned in the opposite end of said housing, means for adjusting said baffling member and regulator for varying the amount of mixture drawn from said housing, an oil valve for permitting the admission of oil into said housing for mixing with the air passing in through said air intake valve, a pivotally mounted lever connected to said air valve and said oil valve, means for adjusting the fulcrum point of said lever for varying the ratio of said air and oil forming the mixture drawn past said baffling member and regulator, and means for locking said fulcrum point in its adjusted position.

5. In a carbureter, a housing, a valve for admitting oil into said housing, a lever for moving said valve, an adjustable fulcrum for said lever, a set screw passing through said housing for adjustably clamping in position said fulcrum, and an air valve, connected to said lever whereby when said air valve is moved said oil valve will be moved.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN A. CARLSON.

Witnesses:

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